

Application No.: 10/622,853
Office Action: 05/13/2004
Amd Dated: 08/13/2004

AMENDMENT

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Please cancel claims 1-21, without prejudice.

Please add new claims 22-44.

1-21. (Cancelled)

22. (New) A personal heat control device comprising:

a housing configured to accommodate an internal DC power supply;

a first outwardly exposed surface configured to be placed in direct or indirect contact with a person's skin;

a second surface thermally insulated from the first outwardly exposed surface;

a heat transfer unit comprising a Peltier-effect unit coupled to the first outwardly exposed surface and the second surface, the heat transfer unit configured to receive electrical power from the internal DC power supply, the heat transfer unit causing one of the first outwardly exposed surface or the second surface to absorb heat and causing the other to give off heat, the heat transfer unit being accommodated in or on the housing; and wherein the personal heat control device is integrated with a mobile phone.

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23. (New) The personal heat control device of claim 22, wherein the internal DC power supply comprises one or more fuel cells.
24. (New) The personal heat control device of claim 22, wherein the internal DC power supply comprises one or more rechargeable batteries.
25. (New) The personal heat control device of claim 22, wherein the internal DC power supply comprises one or more disposable batteries.
26. (New) The personal heat control device of claim 22, wherein the first outwardly exposed surface comprises a cooling surface that absorbs heat as a result of operation of the heat transfer unit.
27. (New) The personal heat control device of claim 22, wherein the first outwardly exposed surface comprises a heating surface that gives off heat as a result of operation of the heat transfer unit.
28. (New) The personal heat control device of claim 26, wherein the Peltier-effect unit comprises one or more ceramic thermoelectric Peltier modules, and wherein the cooling surface comprises a surface area associated with the one or more ceramic thermoelectric Peltier modules.
29. (New) The personal heat control device of claim 26, wherein the Peltier-effect unit comprises one or more ceramic thermoelectric Peltier modules, and wherein the cooling

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surface comprises a spreader in thermal communication with a surface area associated with the one or more ceramic thermoelectric Peltier modules.

30. (New) A personal heat control device comprising:
- a housing configured to accommodate an internal DC power supply;
 - a first outwardly exposed surface configured to be placed in direct or indirect contact with a person's skin;
 - a second surface thermally insulated from the first outwardly exposed surface;
 - a heat transfer unit comprising a Peltier-effect unit coupled to the first outwardly exposed surface and the second surface, the heat transfer unit configured to receive electrical power from the internal DC power supply, the heat transfer unit causing one of the first outwardly exposed surface or the second surface to absorb heat and causing the other to give off heat, the heat transfer unit being accommodated in or on the housing; and
 - wherein the personal heat control device is integrated with a wrist watch.
31. (New) The personal heat control device of claim 30, wherein the internal DC power supply comprises one or more fuel cells.
32. (New) The personal heat control device of claim 30, wherein the internal DC power supply comprises one or more rechargeable batteries.
33. (New) The personal heat control device of claim 30, wherein the internal DC power supply comprises one or more disposable batteries.

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34. (New) The personal heat control device of claim 30, wherein the first outwardly exposed surface comprises a cooling surface that absorbs heat as a result of operation of the heat transfer unit.
35. (New) The personal heat control device of claim 30, wherein the first outwardly exposed surface comprises a heating surface that gives off heat as a result of operation of the heat transfer unit.
36. (New) The personal heat control device of claim 34, wherein the Peltier-effect unit comprises one or more ceramic thermoelectric Peltier modules, and wherein the cooling surface comprises a surface area associated with the one or more ceramic thermoelectric Peltier modules.
37. (New) The personal heat control device of claim 34, wherein the Peltier-effect unit comprises one or more ceramic thermoelectric Peltier modules, and wherein the cooling surface comprises a spreader in thermal communication with a surface area associated with the one or more ceramic thermoelectric Peltier modules.
38. (New) A personal heat control device comprising:
- a cooling surface means for absorbing heat and for being placed in direct or indirect contact with a person's skin;
 - a heating surface means, thermally insulated from the cooling surface means, for dissipating heat absorbed by the cooling surface;

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a heat transfer means comprising a Peltier-effect unit, coupled to the cooling surface means and the heating surface means, for converting electricity into heat absorption through the cooling surface means and heat release through the heating surface means;

a housing means for accommodating the heat transfer unit and an internal DC power supply means, the internal DC power supply means for providing electrical power to the heat transfer means; and

wherein the personal heat control device is integrated with a mobile phone.

39. (New) The personal heat control device of claim 38, wherein the internal DC power supply means comprises one or more fuel cells.
40. (New) The personal heat control device of claim 38, wherein the internal DC power supply means comprises one or more rechargeable batteries.
41. (New) The personal heat control device of claim 38, wherein the internal DC power supply means comprises one or more disposable batteries.
42. (New) The personal heat control device of claim 38, wherein the cooling surface means comprises a cooling surface that absorbs heat as a result of operation of the heat transfer unit.
43. (New) The personal heat control device of claim 38, wherein the Peltier-effect unit comprises one or more ceramic thermoelectric Peltier modules, and wherein the cooling

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surface means comprises a surface area associated with the one or more ceramic thermoelectric Peltier modules.

44. (New) The personal heat control device of claim 38, wherein the Peltier-effect unit comprises one or more ceramic thermoelectric Peltier modules, and wherein the cooling surface means comprises a spreader in thermal communication with a surface area associated with the one or more ceramic thermoelectric Peltier modules.